

resistant to the acid-pepsin medium but both liberated free tannic acid in the alkaline-pancreatic medium. With the exception of the (single) specimen of Aectannin, none of the products which were examined according to the methods described in this paper conformed strictly to the claims made for them.

The Use of Arsphenamin in Non-syphilitic Diseases.—From a study of the literature, REASONER and NICHOLS (*Jour. Am. Med. Assn.*, 1920, lxxv, 645) conclude that for practical therapeutic purposes the beneficial effects of arsphenamin and neo-arsphenamin are most apparent in a limited number of spirochetal diseases. They act as a specific in Vincent's angina, relapsing fever, yaws, gangosa and pulmonary spirochetosis (if given early) in man, and in equine influenza. A therapeutic effect is noted in rat-bite disease, in certain dental conditions and in fowl spirochetosis. Good results have been obtained in syphilitics with a number of non-syphilitic conditions which are influenced adversely by that disease. Their use has been recommended in conditions in which arsenic is indicated; in such cases the effect is alterative rather than specific and there is no special advantage over liquor potassii arsenitis. No apparent benefit has been found in such other spirochetal diseases as Weil's disease and yellow fever. There is a limited effect on certain protozoal diseases, such as malaria (tertian and quotidian), some of the trypanosomiasis and leishmaniasis. This effect may be non-specific. With the exception of anthrax and possibly glanders few favorable results are reported in bacterial diseases. Except in Vincent's angina, arsphenamin and neo-arsphenamin should be administered intravenously in medium-sized dosage. Two or three injections usually are sufficient, except in pulmonary spirochetosis which may require a series of injections. In diseases showing liver involvement, neo-arsphenamin has been recommended, as it is supposed to be less toxic than arsphenamin.

PEDIATRICS

UNDER THE CHARGE OF

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Further Progress in the Study of the Relative Efficiency of the Different Mercurial Preparations.—RAMSEY and GROEBNER (*Am. Jour. Dis. Children*, September, 1920) found that mercurial ointment, 50 per cent., is to be preferred to the less concentrated forms and need not be repeated more often than twice a week instead of daily. The quantity of mercury absorbed is much increased by friction. Calomel ointment is absorbed but less rapidly, and to a less extent than the mercurial preparation, and should, therefore, be given in greater concentration. The salicylate of mercury in oil should be given hypoder-

mically twice a week instead of once a week: Mercuric chloride, by hypodermic injection, although the dose is very small, continues to be eliminated for six or seven days. The fact that its use is frequently followed by the appearance of protein in the urine should exclude it from the treatment of syphilis in children. Calomel by mouth is absorbed in small amounts and continues to be eliminated for a considerable time, so that it would be sufficient to give it at intervals of several days, in order to avoid diarrhea. Gray powder is absorbed to a small degree and eliminated rather rapidly, so that large doses repeated daily would probably be needed to maintain mercury in the circulation.

A Study of Streptococci Obtained from the Mouth in Cases of Chorea.—FLOYD (*Jour. Med. Research*, May, 1920) reports as a result of experimental work in the production of endocarditis, acute articular rheumatism and chorea one or more members of the group of streptococci have been found to be the organisms producing pathologic results. Positive cultural results in clinical cases have mainly shown the streptococcus group. The clinical sequence of tonsillitis, articular rheumatism, with chorea or endocarditis, points to a localized lesion producing periodic systemic infection. Experimental work shows a much higher percentage of carriers of certain types of virulent streptococci in the substance of the tonsils and about the teeth in cases of chorea than occur in normal controls. The frequency with which virulent strains of streptococci are found in the mouth in cases of infection of the meninges, the joint surfaces and the endocardium suggests more than a casual relationship between their presence in the mouth, and systemic disease. He suggests that the teeth and tonsils are in all probability the two portals of entry into the body for streptococci in producing any of these clinically grouped diseases.

Spasmophilia and Vitamins.—VON MEYSENBERG (*Am. Jour. Dis. Children*, September, 1920) thought that in view of the similarity between beriberi in its early stages and active tetany, a deficiency in the diet of the antineuritic vitamine might play a role in the causation of spasmophilia. In both conditions the nervous system is involved, giving rise to such symptoms as hoarseness and laryngospasm. The end-results of the two conditions are, however, entirely different, beriberi being rapidly fatal if not treated and spasmophilia terminating in death. The studies of the author served only to rule out any possible relation between the heightened electrical irritability or the so-called spasmophilic reaction and any deficiency in the diet of the water-soluble vitamin. The infants studied in this group all received liberal allowances of orange-juice in their dietary, yet they showed the electric reactions characteristic of spasmophilia. This was all the more interesting because of the antineuritic content of orange-juice as shown by Osborne and Mendel and later by Byfield and Daniels. The very frequent association of spasmophilia and rickets, and the prominence which has been given to the fat-soluble vitamins in connection with rickets, serves only to add interest to the normal electric reactions obtained in those children whose diet contained a minimal quantity of this factor. The evidence of these cases shows that increased electric reaction is not dependent on a deficiency in the diet of the water-soluble vitamine or of the other two known food accessory factors.

Three Pertinent Questions on Maternal Feeding.—MULHERIN (*Jour. Am. Med. Assn.*, September 25, 1920), in answer to the query as to the advisability of immediate weaning in uncomplicated pregnancy, says that Nature does not intend the mother to nurse a baby at the breast and to furnish nourishment for one in the womb as well. He states that pregnancy itself does not generate toxins or cause them to be formed in the mother. It is the exception rather than the rule for toxemia to complicate pregnancy. It is true, however, that pregnancy as a rule, causes a diminution in the flow of the milk, and the quality is lowered especially of the fats. Because of the difficulty of changing directly from maternal feeding to cow's milk, both in the mother pregnant with another child and in the mother suffering from typhoid fever, he advocates complemental feeding. By complemental feeding he means an artificial feeding given the baby after it has nursed. This differs from supplemental feeding, which is an artificial feeding in place of a breast-feeding. In order to successfully practice complemental feeding a few points must be remembered: After the baby has nursed from the breasts they must be emptied by manual manipulation of finger-milking. In cases where the baby is too weak to suckle the milk must be expressed from the breast and fed by means of a spoon or dropper. He claims that supplemental feeding is wrong in both principle and practice, but that with complemental feeding, breast-feeding can be established, maintained and reinstituted.

The Superior Longitudinal Route.—MCKEE (*Therap. Gaz.*, September, 1920) points out that in the study of infantile disease blood is frequently needed for cultural or biochemic studies. In the past it was difficult to procure. Intravenous therapy in infants as in adults is coming more and more prominently into use. Because of the small superficial vessels in infants it has been difficult to follow this method. The superior longitudinal sinus is a relatively large vessel, very near the surface of the body. Its walls are resistant, it is not easily displaced and it does not occupy anomalous positions. It would seem, therefore, to be the ideal to enter when blood is needed for laboratory investigation or when intravenous medication is required. There is little danger in entering the vessel, but no one should puncture a baby's fontanelle without a due sense of responsibility and without a knowledge of the method and of surgical cleanliness. The scalp should be shaved, scrubbed and painted with iodine. All instruments must be sterilized and the operator should wear rubber gloves. Two assistants are needed, one to hold the head steady and slightly flexed and the other to manage the syringe, tube or transfusion apparatus. The Heimholz needle-holder holds the needle in position and at an angle of 25 degrees. The needle used is a No. 18 or 20 Brown-Smith.

Social and Medical Aspects of Childhood Delinquency.—BROWN (*Jour. Am. Med. Assn.*, October 9, 1920) examined 150 delinquent children of New York and found about one-third could be classified as nervous. They showed various symptoms of either mild or severe character constituting a neurosis. In drawing general conclusions from this survey a few of the most striking features must be indicated. From

a careful observation of delinquent children one cannot but feel that by proper management these conduct disorders might to a great extent be avoided. Usually the child has been misunderstood. Efforts are made to force the child to do something that he is entirely incapable of doing. He may be nervous, lack emotional control or intellectual ability to carry out the task. This is the material from which delinquents are made. Delinquency is often a minor affair at first, but under repeated maladjustments, undesirable habits are developed. Preventive treatment is the only way to manage childhood delinquency. Economic provisions aiming at preventive treatment of these children would not be difficult. Provision should be made for the prompt examination of all cases showing evidence of not getting along well. Special classes in school, and even special schools with vocational classes, would be better than truant schools. Small beginnings have already been made in certain places to accomplish this purpose.

A Note on Vitamines in Relation to Scurvy and Rickets.—DAVIDSON (*Med. Officer*, September 25, 1920) became medical superintendent of a county infant welfare center in 1917. At that time the scarcity of butter and milk was pronounced and mothers and infants showed signs of fat deficiency and insufficient food. Scurvy and rickets were seen in many babies. Those who were not breast-fed were being fed on condensed milk and patent foods. Realizing that this procedure would lead to more rickets and scurvy, the use of all condensed milk and patent foods was condemned. The following method was instituted: All bottle-fed infants were placed on a ration of dried milk plus fruit juice. They all improved up to two or three months, at which period they seemed to stand still. Evidently they lacked something in the diet necessary for growth. Dried milk procured from cows grazed in rough and rocky soil of the hilly country was substituted for that produced from milk of cows pastured in the fertile meadows of the lowlands, because the former was richer in fats and possibly in vitamins. The change was a marked success as the infants increased in weight and became more healthy in appearance. In addition to this red bone-marrow extracted from the rib bones of calves with the addition of a small amount of malt sugar was given. In addition to these things the children received a teaspoonful or two of orange, turnip or lemon-juice.

The Diagnosis and Treatment of Hydrocephalus Resulting from Stricture of the Aqueduct of Sylvius.—DANDY (*Surg., Gynec. and Obst.*, October, 1920) says that cicatricial stenosis of the aqueduct of Sylvius is the most frequent lesion in congenital hydrocephalus, occurring in about 50 per cent. of the cases, and it is also found in a large percentage of cases of hydrocephalus occurring in infancy and early childhood. It may occur, but rarely does so, in adult life. Hydrocephalus always follows occlusion of the aqueduct of Sylvius. The third and both lateral ventricles progressively dilate. The fourth ventricle, being posterior to the obstruction, does not enlarge. In the gross the occluded aqueduct appears to be replaced by a fibrous tissue band, which microscopically is neuroglia. Microscopic remnants of the aqueduct are usually but

not always found. The stenosis may occupy the entire length of the aqueduct or varying parts. It may even be only a thin transparent membrane. The stricture may be only partial. Strictures of the aqueduct can be diagnosed and accurately localized. The indigo-carmin test will indicate that a stricture is present. By ventriculography the obstruction can be definitely located. Spontaneous relief is not possible. Surgical attempts to drain the fluid from the third ventricle to the exterior of the brain have all proved futile. The openings invariably close and the fluid cannot absorb in the subdural space. He suggests a surgical procedure directed to the cause. A new aqueduct is constructed and a tube is left in place for two or three weeks. This has been done on two cases, both recovering from the operation. One died of pneumonia several weeks later, but the other seems well one year after the operation.

OBSTETRICS

UNDER THE CHARGE OF

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Treatment of the Severe Vomiting of Early Pregnancy.—LYNCH (*Jour. Am. Med. Assn.*, August 16, 1919) contributed a paper upon this subject at the meeting of the American Medical Association. He has examined the statistics of various countries to determine the frequency of this condition. Statistics seem to indicate that the severe vomiting of early pregnancy was less frequent in Germany than in America, England, France and Russia. In the writer's experience 58 per cent. of his private patients gave a history of nausea and vomiting in early pregnancy in 45 per cent. of his hospital cases. So far as serious cases are concerned, Carl Brown is credited with the statement that in 150,000 pregnancies he saw no fatal case. Similar statements were made by other German and Austrian obstetricians. The records of death from pernicious vomiting in France and England indicate a higher mortality. In 1914 Bondy reported only 21 cases of pernicious vomiting in 10,000 pregnancies in Breslau. He quotes similar statistics in two German clinics. In 2750 clinic cases at the University of California Hospital 14 were admitted for the treatment of pernicious vomiting of early pregnancy. The writer believes that in some way in these cases the maternal organism is sensitized to vomiting while in a state of pregnancy. He does not explain what is meant by this statement, nor does he mention the absorption of syncytium, which to many obstetricians is a rational explanation of this condition. Possibly these two causes may be related and frequently appear in common. In the pathology of the condition the changes in the liver are clearly recognized. Milder cases dying of some other condition show little more than the cloudy swelling of the parenchyma of the liver. All fatal cases, or nearly all fatal cases, show decided structural change varying from simple fatty